Work Order ID 108088 Page 1 October-07-13 9:10:55 AM B 108088 Accept Item ID: *N900040100* Setup Start D2175-1 **Revision ID:** Angle LH Item Name: *10* *14 **Start Qty: 10.00 Start Date:** 10/07/13 **Cust Item ID:** Required Date: 10/07/13 Req'd Qty: 10.00 **Customer:** Reference: Run Process Plan: MLJ Date: 13-10-07 Tooling: Date: **Approvals:** Stop Date: SPC (Y/N): Date: Tool ID Sequence ID/ Operation Set Up/ Tool # Plan Accept Reject Reject Insp. Number Stamp Qty Work Center ID Description **Run Hours** Code Qty Draw Nbr **Revision Nbr** D2175 Rev E 100 0.00 FLOW WATER JET *100* 0.00 Waterjet Memo 1-Cut as per Dwg D2175 FLOW CNC Waterjet Dwg Rev: L Z 2024.063 Prog Rev: 2 2-Deburr if necessary OC2-Inspect parts off machine FAI/FAIB 0.00 110 *110*

0.00

Memo

QC

Quality Control

												DQA:	Da	te:	
NCR:	Yes	/ No				WORK ORDER NON-	COI	NFORM	/ANCE / UP	DATE				•	
											QA CI	osed:	Da	te:	,
Work Orde	ar.				:	DISPOSITION				AGAINST D	EPARTI	MENT,	/PROCESS		
WOIR OIG	- '					Rework	٦		Skid-tube	Crosstube	7		Water Jet		Engineering
Part I	No.					Scrap	1		Machining	Small Fab	1	Pro	d. Eng. Coor.	H	Quality
	•					Use-as-is	1	1	noforming	Finishing	Re		re/Packaging		Other
NCR I	No.	 –				Work Order Update]		Supplier			
Root					Descri	ction of work order update	T	Initial	Ac	tion	Sign	ո &			
Cause		Date	Step	Qty	(or Non-conformance	Ch	nief Eng	Desc	ription	Da	te	Verificatio	n	QC Inspector
Doc/Data															,
Equip/Tooling	Ш			1 1			1						!		
Operator	Ш		ĺ					Ì						1	
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Other															
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Landi	ng C	ear			·	General		-			_				-
		Bending				Bend	L	Grain			Ovaliz	ed		L	Pressure/Forced
		Centre N	ot Conce	ntric to O	/S	BOM/Route		Hardwa	re		_Over/	Under	tolerance		Temperature/Cure
		Cracks				Broken/Damaged		Inspecti	on Incomplete		Part Ir	ncorre	ct		Weld
		Crushed/	Crimped			Burrs		Instruct	ions Incomplete/	'Unclear	Part L	ost/Mi	issing		Wrong Stock Pulled
		Cuffs				Contamination		Mainte	nance		Part N	/loved			
		Heat Tre	at			Countersink		Mislabe	led		Positio	oned V	Vrong		_
		Inspectio	n Strip in	Tube	[Cut Too Short		Misread	I		Powe	r Loss/	Surge		Other
]		Ripples ii	n Bend			Drill Holes		Offset							

Out of Calibration

Out of Sequence

Outside Dimensions

Turning Sequence

Wave/Twist in Tube

Torque Waves in Extrusion

Drawing

Finish Folio

H:/FORMS/Quality Assurance\approved QA/NCRWO Rev G

140

Brake NC

Brake NC

NC BRAKE

Memo

Form as per Dwg D2175

108088

Page 2

October-07-13 9:10:56 AM Accept *N900040100* Item ID: D2175-1 Setup Start **Revision ID:** Angle LH Item Name: *10* 10/07/13 **Start Qty: 10.00 Start Date: Cust Item ID:** Req'd Qty: 10.00 Required Date: 10/07/13 **Customer:** Reference: Run Process Plan: Date: Date: **Approvals:** Stop Date:____ SPC (Y/N): Date: QC: Tool ID Tool # Plan Reject Insp. Sequence ID/ Operation Set Up/ Accept Reject Qty Number Stamp **Work Center ID Description Run Hours** Code Qty DAS QC8- Inspect parts - second check 120 *120* Memo Quality Control 0.00 130 Small Fab *130* 9-89 0.00 Small Fab Memo Small Fab Deburr Stack 140 0.00

0.00

DAS

30 9-89

										DUA.	Date.		
NCR: Y	es / No				WORK ORDER NON-C	CONF	ORN	MANCE / UPDATE		QA Closed:	Date:	·	
Work Orde	·				DISPOSITION		AGAINST DEPARTMENT/PROCESS						
Part No. NCR No.				Rework Skid-tube Crosstube Scrap Machining Small Fab Use-as-is Thermoforming Finishing Work Order Update Large Fab Composite			l Fab shing	Prod Rec/Stor	Engineering Quality Other				
Root				Descri	ption of work order update	lni	tial	Action		Sign &			
Cause	Date	Step	Qty		or Non-conformance	Chie	f Eng	Description		Date	Verification	QC Inspector	
Doc/Data													
Equip/Tooling													
Operator			ļ										
Material [
Setup													
Other											!		
Process		ļ				1							
Supplier													
Training												•	
Unapproved		<u> </u>											
					F.	AULT	CATE	GORY					
Landir	ng Gear				General					•		-	
	Bending				Bend	∐ G	irain			Ovalized		Pressure/Forced	
	Centre N	lot Conce	ntric to	o/s	BOM/Route	Шн	ardwa	re	L	Over/Under	tolerance	Temperature/Cure	
	Cracks			L	Broken/Damaged	∐lr	rspecti	on Incomplete	L	Part Incorred	t	Weld	
	Crushed	/Crimped			Burrs	Ir	struct	ions incomplete/Unclear	1	Part Lost/Mi	ssing	Wrong Stock Pulled	

Maintenance

Out of Calibration

Out of Sequence

Outside Dimensions

Mislabeled

Misread

Offset

Part Moved

Positioned Wrong

Power Loss/Surge

Other

Wave/Twist in Tube Folio

H:/FORMS/Quality Assurance\approved QA/NCRWO Rev G

Contamination

Countersink

Cut Too Short

Drill Holes ,

Drawing

Finish

Cuffs

Heat Treat

Ripples in Bend

Turning Sequence

Inspection Strip in Tube

Torque Waves in Extrusion

170

Quality Control

Work Order ID 108088

Memo

Page 3

October-07-13 9:10:56 AM Accept *N900040100* D2175-1 Setup Start Item ID: **Revision ID:** Item Name: Angle LH **Start Oty:** 10.00 *10* 10/07/13 **Start Date: Cust Item ID:** Req'd Qty: 10.00 Required Date: 10/07/13 **Customer:** Reference: Run Process Plan: Date: Tooling: Approvals: Stop Date: _____ SPC (Y/N): Date: Tool ID Tool # Plan Accept Reject Reject Insp. Sequence ID/ Operation Set Up/ Run Hours Code **Qty** Qty Number Stamp Work Center ID **Description** 0.00 . 150 QC5- Inspect part completeness to step on W/O 27 9-89 *150* 0.00 B 10 30 QC Memo Quality Control Chemical Conversion Coat per QSI005 4.1 0.00 160 14 763-11-13 *160* 0.00 HandFinish Memo Hand Finishing DAS 27 0.00 170 QC7-Inspect Chemical Conversion Coat

											DQA:	Date	·
NCR:	⁄es	/ No				WORK ORDER NON-	COI	NFORM	/ANCE / UP	DATE	QA Closed:	Date	:
M						DISPOSITION				AGAINST DE			
Work Order: Part No NCR No						Rework Skid-tube Machining Use-as-is Thermoforming Work Order Update Large Fab		Machining noforming	Crosstube Small Fab Finishing Composite	Water Jet Prod. Eng. Coor. Rec/Store/Packaging Supplier		Engineering Quality Other	
Root Desc				Descri	iption of work order update		Initial	nitial Action		Sign &	<u> </u>		
Cause		Date	Step	Qty		or Non-conformance	Ch	nief Eng	Desc	ription	Date	Verification	QC Inspector
Doc/Data Equip/Tooling Operator Material Setup Other Process Supplier Training Unapproved								LT CATE	SORY				
	· •						AUL	LICATE	JURY				
Land		Bending Centre N Cracks Crushed/ Cuffs Heat Tre	'Crimped at		o/s	General Bend BOM/Route Broken/Damaged Burrs Contamination Countersink Cut Too Short		4 .	on Incomplete ions Incomplete/ nance led	'Unclear	Ovalized Over/Under Part Incorre Part Lost/M Part Moved Positioned N	ct issing Vrong	Pressure/Forced Temperature/Cure Weld Wrong Stock Pulled Other
1	1	Inspectio	กาวเกษาก	rube	I	Lear 100 Short	1	Tiviisread	I	i i	Power Loss/	ourge	Jourer

Offset

Out of Calibration
Out of Sequence

Outside Dimensions

H:/FORMS/Quality Assurance\approved QA/NCRWO Rev G

Turning Sequence

Wave/Twist in Tube

Ripples in Bend

Torque Waves in Extrusion

Drill Holes

Drawing

Finish Folio Work Order ID 108088

108088

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October-07-13 9:10:56 AM

Accept *N900040100* Setup Start Item ID: D2175-1 **Revision ID:** Item Name: Angle LH *10* **Start Qty:** 10.00 **Start Date:** 10/07/13 **Cust Item ID:** Required Date: 10/07/13 Req'd Qty: 10.00 **Customer:** Reference: Run Process Plan: Date: Tooling: Date: Approvals: Stop SPC (Y/N): QC: Date: Date: Sequence ID/ Operation Set Up/ Tool ID Tool # Plan Accept Reject Reject Insp. Qty Qty Number Stamp **Description Run Hours** Code Work Center ID Identify as per dwg & Stock Location: 6) 0.00 180 *180* Packaging 0.00 Memo Packaging 0.00 QC21- Final Inspection - Work Order Release 190 *190* QC 0.00 Memo Quality Control

DQA: Date: **WORK ORDER NON-CONFORMANCE / UPDATE** NCR: Yes / No QA Closed: Date: **AGAINST DEPARTMENT/PROCESS** DISPOSITION Work Order: Crosstube Engineering Skid-tube Water Jet Rework Small Fab Prod. Eng. Coor. Quality Part No. Scrap Machining Rec/Store/Packaging Other Use-as-is Thermoforming Finishing NCR No. Work Order Update Large Fab Composite Supplier Description of work order update Initial Action Sign & Root Qty or Non-conformance Chief Eng Description Date Verification QC Inspector Date Step Cause Doc/Data Equip/Tooling Operator Material Setup Other Process Supplier Training Unapproved **FAULT CATEGORY Landing Gear** General

Grain

Hardware

Maintenance

Out of Calibration

Outside Dimensions

Out of Sequence

Mislabeled

Misread

Offset

Inspection Incomplete

Instructions Incomplete/Unclear

Ovalized

Part Incorrect

Part Moved

Part Lost/Missing

Positioned Wrong

Power Loss/Surge

Over/Under tolerance

Pressure/Forced

Weld

Other

Temperature/Cure

Wrong Stock Pulled

H:/FORMS/Quality Assurance\approved QA/NCRWO Rev G

Turning Sequence

Wave/Twist in Tube

Ripples in Bend

Bending

Cracks

Cuffs

Heat Treat

Crushed/Crimped

Inspection Strip in Tube

Torque Waves in Extrusion

Centre Not Concentric to O/S

Bend

Burrs

BOM/Route

Contamination

Countersink

Cut Too Short

Drill Holes

Drawing

Finish

Folio

Broken/Damaged

Work Order ID:

108088

Parent Item:

Comments:

D2175-1

Parent Item Name:

Angle LH

IPP E04.06.09ReformatKJ/RF

IPP Rev:F 06-04-28 Manufactured on Water Jet JLM

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
M2024T3S.063 2024-T3 .063 sheet		Purchased	No			100	sf	336.0789	0.4722	4 .9705 26	7.5		m13>10
				Location		Loc Qty	Lo	e Code				Ae	1310
				MAT022		336.0789						- 12	13/0
				11	9916	0.2							
				12	1197	21.34							
				12	3096	11.4							
				12	3654	11.64							
				12	3701	16.1039							
				12	5341	87.94					7		
				12	5636	187.455			125	-63G	THE ST)	

Page 1

Required Date: 10/07/13

Required Qty: 10.00

Start Date: 10/07/13

Start Qty: 10.00

									DQA:	Date:	
NCR: Y	es / No				WORK ORDER NON-O	CONFORI	MANCE / UP	DATE	QA Closed:	Date:	
						T					
Work Orde	r:				DISPOSITION			AGAINST DE	PARTMENT	/PROCESS	
Part No					Rework Skid-tube Crosstube Scrap Machining Small Fab Use-as-is Thermoforming Finishing Work Order Update Large Fab Composite		Small Fab Finishing	Water Jet Prod. Eng. Coor. Rec/Store/Packaging Supplier		Engineering Quality Other	
Root		1	l	Descri	ption of work order update	Initial	Ac	tion	Sign &		
Cause	Date	Step	Qty		or Non-conformance	Chief Eng	ŀ	ription	Date	Verification	QC Inspector
Ooc/Data Equip/Tooling Operator Material Setup Other Process Supplier Fraining Unapproved					ţ						
						AULT CATE	GORY				
Landir	Bending Centre N Cracks Crushed/ Cuffs Heat Tree	Crimped		o/s	General Bend BOM/Route Broken/Damaged Burrs Contamination Countersink	Instruc Mainte Mislabe	ion Incomplete tions Incomplete/ enance eled	/Unclear	Ovalized Over/Under Part Incorre Part Lost/M Part Moved Positioned N	ct issing	Pressure/Forced Temperature/Cure Weld Wrong Stock Pulled
	Inspectio	n Strip in	Tube	1	Cut Too Short	Misrea	d	j	Power Loss,	/Surge	Other

Offset

Out of Calibration

Out of Sequence

Outside Dimensions

Turning Sequence

Wave/Twist in Tube

Ripples in Bend

Torque Waves in Extrusion

Drill Holes

Drawing

Finish

Folio

H:/FORMS/Quality Assurance\approved QA/NCRWO Rev G

DART AEROSPACE LTD	Work Order: 108088
Description: Angle LH	Part Number: 32175 - 1
Inspection Dwg: 2175 Rev:	Page 1 of 1

FIRST ARTICLE INSPECTION CHECKLIST

Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
12.650"	+1- ,010	12.650"	-		Т	JKM-06
	+1- 1030	Ro.35			RG	
	+1- 1010	2,915"			V	JKm-01
50°	+1- ,5°	50°			protractor	
.300	+/- ,010	.300'			<u>'</u> v	
1.050 Rta	+1- ,010	1.050"	-			
10.500"	+1010	10.500"			T	
11,550"	+1010	11.550"	-		T	
.550"	+/- ,010	,550"			V	
	+/010	.900"			V	
.063"	+1010	.063"	-		٧	
	+,005/-,001	.128"	••		V	
Ø .172"	+.005/001	.i72"	<u> </u>		ν	
GRAIN Dir.	1	\$			Visual	visual
•						
				:	y	
			DAS			

		2/		
Measured by:	Audited by:	9-89	Preliminary Approval:	
Date: 13.10.29	Date:	16 10 29	Date:	

Rev	Date	Change	Revised by	Approved
E	10.04.14	Added preliminary approval	KJ	

N 10.04.15

